

REMARKS

This Amendment is submitted in response to the Office Action dated November 20, 2003, wherein the Examiner rejected claims 1-20, all of the claims pending in this application. Applicant respectfully requests reconsideration in light of the amendments and remarks herein.

Claims 1-20 are pending in the application and claims 1, 2, 8 and 15 have been amended. Claims 1 and 8 have been amended to clarify the sequence of layers of the optical information recording medium. It is to be understood that the term "upwards" is not a directional limitation but generally explains the positional relationship between the layers of the medium. Applicant respectfully asserts that one of ordinary skill in the art would understand that the invention incorporates recording media having the same sequential arrangement but positioned such that the subsequent layers are not directionally "upwards" from the substrate base, but might be downwards, to the left and so forth. Claims 2 and 15 have been amended to correct a spelling error. No new matter has been added. Claims 1 and 8 are independent. Accordingly, claims 1-20 remain pending in the application.

Rejection Under 35 U.S.C. 102(b)

The present invention is not anticipated by Kanno (US 6,103,331)

Claims 1-7 were rejected under 35 USC §102(b) as being anticipated by U.S. Patent No. 6,103,331 to Kanno (Kanno). According to the Examiner, Kanno discloses an optical recording medium comprising a recording layer, which includes a styrylcyanine, and a metallic reflective layer laminated on a resin substrate. The Examiner asserts that Kanno teaches that the recording layer can be formed on the metallic layer, and that the protective film is formed of a photocuring

resin that can be cured by UV curing or visible light curing. Applicant respectfully traverses the rejection and requests reconsideration in light of the amendment and remarks set forth herein.

Prior to addressing each of the prior art references individually, Applicants take this opportunity to set forth the following brief remarks in connection with their invention, which is an optical information recording medium.

One technical object of the invention is to provide an optical information recording medium that exhibits excellent recording properties by inhibiting deterioration of a recording layer during the process of fabricating the medium.

In order to achieve the aforementioned technical objectives, Applicant developed an optical information recording medium comprising, in sequence, a substrate base, a light-reflective layer formed over the substrate, a recording layer formed over the light-reflective layer and a protective layer over formed directly on the recording layer comprising photocurable resin that has been cured by being irradiated with visible light that can transmit the laser light used for information recording, in the specified order. As amended herein, claims 1 and 8 clarify the sequential arrangement of the layers of the recording medium.

Applicant respectfully asserts that Kanno fails to teach the present invention. Claim 1, the only independent claim rejected as being anticipated by Kanno, teaches a recording medium comprising a plurality of layers formed in a specified order. Specifically, claim 1 recites "An optical information recording medium, in sequence, comprising: a substrate... a light-reflective layer formed on the substrate... a recording layer formed on the light-reflective layer... a thin protective layer formed directly on the recording layer...". Applicant respectfully asserts that this arrangement of layers of the recording medium is not taught or suggested by Kanno. Rather,

Kanno describes an optical recording medium comprising, in sequence, a substrate, a recording layer over the substrate, a metallic layer over the recording layer and a protective order over the metallic layer.

The order of arrangement of the layers in Kanno would frustrate the purpose and utility of the invention and therefore teaches away from the invention. More specifically, if the medium comprised a substrate, a recording layer, a light-reflective layer and a protective layer, in that order, a laser beam irradiated from the protective layer side of the medium, in accordance with the direction of irradiation contemplated in accordance with the invention, would be reflected at the light-reflective layer and would not reach the recording layer. It would therefore be difficult to effectively record and reproduce the information because the laser would not reach the recording layer.

In Kanno, information is recorded on and reproduced from the medium by irradiating a laser beam from the substrate side. This is in direct contrast to the intention of the invention, which is directed to information being recorded on and reproduced by irradiating a laser beam from the side having the thin protective layer.

Furthermore, it would not have been obvious to one of ordinary skill in the art to change the direction from which the medium is irradiated. The medium of Kanno is irradiated from the substrate side because Kanno is directed to a DVD, which typically is irradiated by reading laser beams from the substrate side. In a DVD, and particularly, the DVD of Kanno, the substrate functions as a lens and focuses the beams onto the recording layer. Therefore, it would not have been obvious to change the arrangement of layers or the direction from which the beams are irradiated to obtain the invention.

Additionally, an object of the invention is to inhibit deterioration of the recording layer during the fabricating process, in which a photocurable resin is irradiated with visible light from the side having a protective layer. On the other hand, the recording layer of Kanno would not deteriorate in such use because the irradiated light would be reflected by the metallic layer and would not reach the recording layer. Therefore, not only does Kanno not address this objective, it does not need to, because Kanno is not susceptible to the deterioration that the invention seeks to inhibit. Accordingly, it would not have been obvious to modify Kanno to provide a recording medium in accordance with the invention.

Applicant respectfully asserts that at least because Kanno fails to disclose or suggest the arrangement of layers, the specified use of the invention or the objective of the invention discussed above, Kanno does not anticipate the invention or render it obvious.

Accordingly, Applicant respectfully submits that claims 1-7 are not anticipated by Kanno and requests that the Examiner reconsiders and withdraws the rejection of claims 1-7 under 35 U.S.C. §102(b).

Rejection Under 35 U.S.C. 103(a)

The present invention is not rendered obvious by Kanno (US 6,103,331) in view of Kondo (US 6,083,597) and Takase et al., (US 6,440,519)

Claims 1-20 were rejected under 35 USC §103(a) as being rendered obvious by Kanno (US 6,103,331) in view of Kondo (US 6,083,597) (Kondo) and Takase et al., (US 6,440,519) (Takase). Applicant respectfully traverse this rejection and requests reconsideration in light of the amendment and remarks set forth herein.

The Examiner asserts that Kanno discloses the limitations of the rejected claims except for the adhesive component located between the recording layer and the protective layer, and that Kondo and Takase provide for the adhesive component, thereby rendering the invention obvious. Applicant respectfully asserts that, as discussed above, Kanno fails to teach a medium having the specified sequential arrangement of layers on the substrate, the direction upon which a laser beam is irradiated and also fails to achieve or address the objective of the invention discussed above. Kondo and Takase also fail to teach these elements of the invention, and therefore, Kanno combined with Kondo and Takase do not render the invention obvious. Additionally, because at least some of the objectives and the use of the invention and Kanno are different, there was no motivation to combine Kanno with Kondo and Takase to obtain the invention, and accordingly, the invention is not rendered obvious. Neither is directed to constructing an optical recording medium in which recording beams are directed from the recording layer side, rather than the substrate side. Accordingly, Applicant respectfully submits that claims 1-20 are not rendered obvious by Kanno in light of Kondo and Takase and requests that the Examiner reconsiders and withdraws the rejection of claims 1-20 under 35 U.S.C. §103(a).

Accordingly, in light of the foregoing assertions, Applicant respectfully requests withdrawal of the rejections set forth in the November 20, 2004 Office Action, and further asserts that the application is in condition for allowance.

No fee, other than that for the accompanying Petition for Extension of Time, is deemed necessary in connection with the filing of this Amendment. However, if any additional fee is required, any required fees may also be charged to Deposit Account No. 19-4709. Early and favorable action in the above-identified application is respectfully requested.

Respectfully submitted,

By


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